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Reading Fluency: More Than Automaticity? More Than a Concern for the Primary Grades?

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Reading fluency has traditionally been viewed as a goal of reading that is taught and mastered in the elementary grades. In this article we challenge that notion by exploring the role of reading fluency as a contributor to reading proficiency and difficulty among intermediate and middle grade students. We assessed reading fluency development among a large number of third-, fifth-, and seventh-grade students, using prosody (expressiveness in oral reading) rather than reading rate (word recognition automaticity) as a measure of reading fluency. We found moderately strong correlations between fluency and silent reading comprehension as measured by a standardized achievement test at all three grade levels. Our findings suggest that reading fluency appears to be a significant variable in upper elementary and middle grade students' reading. Moreover, the findings add to mounting evidence that prosody is an important component in the full manifestation of reading fluency. Both components of fluency, automaticity and prosody, should be considered in measures of reading fluency and in instructional methodologies for improving reading fluency. We suggest that more research is called for into the role of reading fluency among adolescent students, especially those students experiencing difficulty in achieving high levels of literacy. We also call for continued research into the role of prosody in students' reading achievement.

Keywords adolescent readers, assessment, automaticity, middle grade readers, prosody, reading fluency, struggling readers

With the publication of the report of the National Reading Panel (2000) reading fluency has become more recognized as a key element in successful reading programs in the primary grades. Indeed, Jeanne Chall's (1983) seminal model of reading identified the attainment of reading fluency as one of the earliest stages of reading achievement. Given that reading fluency deals with mastery of the surface level of the text—accuracy and automaticity in word decoding and expression (prosody) in oral reading—it is quite appropriate to think of fluency as a goal to be mastered as early as possible in one's reading development. Indeed, Schwanenflugel et al. (2006) propose a "simple reading fluency" model for primary grade students in which "... fluent word and text reading operate together with autonomous reading to produce good comprehension" (p. 497).

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Recent research, however, has suggested that the issue of reading fluency goes beyond the primary grades. Our own work among struggling elementary grade students (grades 1–5) referred for Title I supplementary reading instruction by their regular classroom teacher found that the lack of reading fluency appeared to be the area of greatest impairment in reading (Rasinski & Padak, 1998). Large scale studies by Pinnell et al. (1995) and Daane, Campbell, Grigg, Goodman, and Oranje (2005) of the relationship between oral reading fluency and fourth graders' silent reading comprehension found that nearly half of the 1,000+ sample of fourth-grade students had yet to achieve a minimal level of reading fluency. Rasinski et al. (2005) found that fluency, as measured by reading rate, was significantly correlated with reading comprehension among ninth-grade students; moreover, a significant number of ninth graders read at rates that were well below reading rate norms expected of eighth graders. Winn, Skinner, Oliver, and Hale (2006) worked with struggling adult literacy learners who had yet to attain appropriate levels of fluency. Instruction focused on fluency led to improvements of these adult learners' reading fluency as measured by reading rate.

One possible explanation for the connection between fluency and comprehension comes from LaBerge and Samuels' (1974) theory of automaticity in reading. According to this theory, readers who have not yet achieved automaticity in word recognition must apply a significant amount of their finite cognitive energies to consciously decode the words they encounter while reading. Cognitive attention or energy that must be applied to the low-level decoding task of reading is cognitive energy that is denied to the more important task of comprehending the text. Hence, comprehension is negatively affected by a reader's lack of fluency.

Our own work in our university reading clinic indicates that difficulties in reading fluency are manifested in a majority of students in grades 2 through 8 who are referred for reading difficulties. Although the primary reason for referral may ostensibly be difficulties in reading comprehension (especially among intermediate- and middle-grade students), we also find that a lack of fluency accompanies the problems in comprehension. Our intervention program provides work in both fluency and comprehension and, for the most part, students make significant gains in both areas of reading.

Reading fluency has a second component that is often overlooked in studies on fluency and reading fluency instruction—prosody (Rasinski, 2006). Prosody refers to reading with expression; it is sometimes referred to as the melodic element in reading. Fluent reading (and speech) is usually characterized by readers (and speakers) who read at an appropriate rate, but who also convey meaning through their voices—pitch, stress, and appropriate phrasing (Dowhower, 1991; Schreiber, 1991). Stahl and Kuhn (2002; Kuhn, 2004/2005) define prosody as the “ability to make oral reading sound like spoken language” (p. 339).

Prosodic reading has been identified by most reading scholars doing work in fluency as an essential component of reading fluency (e.g., Allington, 1983; Kuhn & Stahl, 2000; National Reading Panel, 2000; Rasinski & Hoffman, 2003). Work by Schreiber (1980, 1987, 1991; Schreiber & Read, 1980) suggests that prosody offers a second compelling component to fluency in reading. Prosody serves as an indicator or reflection of readers' attempt to understand what they read because “without such an understanding it would be impossible to apply those elements appropriately . . . it seems likely that instruction designed to develop learners' fluency (automaticity and prosody) will lead to improvements in their comprehension as well” (Kuhn, 2004/2005, p. 339).

Recent studies have suggested a causal link between prosody and comprehension for third-grade students (Miller & Schwanenflugel, 2006) and fourth-grade students (Whalley &

Hansen, 2006). Prosody or expressive reading is also likely to have an impact on readers' engagement and motivation to read (Morrow & Asbury, 2003). Despite the potential for prosody to affect reading comprehension and overall reading achievement, relatively little research has focused on the role of prosody in reading fluency and its relationship to reading comprehension (Dowhower, 1991; Kuhn, 2004/2005; Kuhn, Schwanenflugel, Morris, Morrow, Wou, Meisinger, et al., 2006), especially for students beyond the early grades.

Fluency Beyond the Primary Grades

Although fluency is generally thought of as a primary-grade issue, we wondered about the extent to which fluency remains an issue in reading comprehension and overall reading achievement as students move out of the primary grades. Chall's (1983) model suggests that once fluency is achieved in the primary grades other factors such as vocabulary and comprehension take on more salient role in students' literacy development in the upper elementary grades and beyond.

Previous research (Rasinski et al., 2005), however, does indicate that a significant number of secondary students do experience difficulties in reading fluency that are associated with reading comprehension. However, this research did not address the relative importance of fluency as students progress through school. Although fluency may be an issue for some older students, current models of reading as well as conventional wisdom suggests that the relative importance of reading fluency diminishes with student age. The current study attempted to put this assumption to the test.

At the same time, most research into reading fluency has used reading rate as the measure of reading fluency and reading achievement (Deno, 1985; Deno, Mirkin, & Chiang, 1983; Marston, 1989; Rasinski, 2004). Although rate may be a measure of word recognition automaticity, it does not capture the prosodic component of reading, that component that connects comprehension, or the making of meaning, to fluency. For students to read with appropriate expression, they need to be cognizant of the meaning of passage.

We feel that reading rate does not provide the complete picture of reading fluency. Moreover, we feel that the overt focus on reading rate has led to instructional methods in fluency that focus primarily and almost exclusively on the development of reading rate. Such a focus is a corruption of the notion of fluency and, according to some scholars (e.g., Rasinski, 2006; Samuels, 2007) has led to some unintended and unfortunate consequences—readers who think that proficient reading is little more than reading fast without regard for meaning. We agree that reading too slowly may be an indicator of disfluent reading; but an overt and intensive focus on reading rate in instruction is an inappropriate interpretation of the research on the relationship between reading rate and reading achievement that is largely correlational in nature.

Reading fast, without regard for internal and external, as well as explicit and implicit punctuation, is also indicative of disfluent reading. Indeed, observations of children reading indicates that some children have acquired the notion that fast reading, without regard for prosody or meaning, is good reading. Although they may be fast in their reading, and "fluent" as measured by reading rate, their comprehension is inadequate. We cannot claim that such readers are fluent or proficient.

Our Study

The purpose of our study, then, was to explore the relationship between reading comprehension and reading fluency, as measured by prosody (phrasing intonation, pace, etc.), at

grades 3, 5, and 7. Our assumption was that as students progressed through the grades, the overall relationship between fluency and reading comprehension would continue to be significant, but would likely diminish. Several specific research questions guided this study:

1. To what extent is prosodic reading and a measure of prosodic reading associated with overall reading proficiency as measured by a standardized test of reading comprehension?
2. What is the magnitude of the relationship between measures of prosodic reading fluency assessment and reading comprehension at grades 3, 5, and 7?
3. To what extent does the magnitude of the relationship between prosodic reading fluency and reading comprehension change as students progress through the grades?

Background and Methodology

The site for the study was the Westside Community Schools, a small, urban school district of approximately 6,100 students in Omaha, Nebraska with 10 elementary buildings (grades K–6), one middle school (grades 7–8), and one high school (grades 9–12). All students in grades 3, 5, and 7 were administered the Stanford Achievement Test, ninth edition (1977) (SAT9), a standardized, norm-referenced silent reading assessment administered district-wide at grades 3, 5, and 7. The comprehension subtest, which consists of both narrative and expository passages, was used as the measure of reading comprehension. A 60-minute period is allowed for administration of the SAT9 reading comprehension subtest (50 minutes testing and 10 minutes for directions).

Reading instruction is a priority in the Westside Community Schools. Average percentile scores for third-, fifth-, and seventh-grade students on the standardized reading achievement test given in the district ranges between the 58th and 71st percentile for grades 3, 5, and 7 over the past two academic years (Westside Community Schools, 2008). The reading curriculum at the time of the study could best be described as a basal reading program supplemented with a strong literature emphasis. Each school in the district has a full-time reading coordinator who provides literacy support for teachers and students within her or his assigned school.

A second agent in the study was the Educational Service Unit #3 (ESU #3), an intermediate education agency in Omaha, Nebraska serving 18 school districts with a total student population of 61,000 students and 5,000 teachers. Westside Community Schools is one of the districts served by ESU #3.

The professional development department within ESU #3 is responsible for designing regional programs for teacher learning as well as collaborating with schools on custom services as specified by each district. As an ESU #3 member district, Westside is entitled to both regional and custom services. During the 2005–2006 school year Westside and ESU #3 designed a custom project that tested the relationship of reading fluency to reading comprehension. The project involved two basic steps:

1. Digitally recorded oral reading samples on grade level texts from every student in the Westside elementary and middle schools in grades 3 ($n = 391$), 5 ($n = 421$), and 7 ($n = 392$);
2. Scoring those audio reading files for prosodic reading using an established system designed by ESU #3 (see Figure 1 for the scoring guide used to score the oral readings).

Students read a narrative passage that was taken from a published trade book, that matched their assigned grade level, and that was a minimum of 200 words in length. Readability levels of the passages were verified using Lexile (The Lexile Framework for Reading, 2008) and the Flesch-Kincaid readability formulae; reading specialists for the school system verified that the literary quality of the passages was appropriate for their

A. Phrasing and Expression

- 4 Reads with good expression and enthusiasm throughout the text. Sounds like natural language throughout the text. Varies expression and volume to match his or her interpretation. Generally well-phrased and meaningful; mostly in phrase, clause, and sentence units, with adequate attention to expression.
- 3 Makes text sound like natural language throughout the better part of the passage. Mixture of run-ons, mid-sentence pauses for breath, and possibly some choppiness; reasonable stress/intonation.
- 2 Begins to use voice to sound like natural language in some areas of the text but not others. Generally two and three word phrases, which break up the reading; improper or inadequate stress and intonation; fails to mark the ends of sentences, clauses, and phrases.
- 1 Little sense of trying to make text sound like natural language. Tends to read in a quiet voice and/or monotonic, unenthusiastic reading, with little sense of phrase boundaries. May be frequent word-by-word reading or run-on word calling with no attention to expression.

B. Accuracy and Smoothness

- 4 Generally smooth and accurate reading with a few decoding breaks; word and structure difficulties are resolved quickly, usually through self-correction. Smooth phrasing enhances the interpretation.
- 3 Occasional decoding breaks in smoothness caused by difficulties with specific words and/or syntactic structures. Additions or deletions are minimal and usually resolved. Smoothness includes attention to phrases.
- 2 "Rough spots" in text where extended pauses, hesitations, sound outs, etc., may be frequent and disruptive. Student may add or delete words without correcting. There may be a combination of rough and smooth spots with little attention to phrasing.
- 1 Extended pauses, hesitations, sound-outs, repetitions, or multiple attempts MAY be present. Words may be changed, added and/or deleted without notice. The reader does not attend to the smooth delivery of phrases.

C. Pacing

- 4 Consistently conversational; appropriate rate throughout reading. Pace enhances the meaning of the text.
- 3 Mixture of appropriately quick and overly slow or fast reading. Attention to the effect of pace on meaning throughout most of the text.
- 2 Generally inappropriate speed for the text. Pays little attention to the effect of speed on the meaning of the text.
- 1 Inappropriate speed; slow and laborious or run-on. Ignores the effect of speed on the meaning of the text.
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NOTE: Dialect and speech/language differences should not affect the ratings.

FIGURE 1 Multi-dimensional fluency scoring guide.

intended grade levels. One passage was selected for students in grade 7. Two passages were selected for the elementary students, both at grade level, with one at a somewhat lower lexile level for students identified as having special academic needs. After an opportunity to read the test passage silently ("whisper practice") students were asked to read the passage orally using their normal and expressive voice. Students were given ten minutes at the computer to complete a one minute recorded reading. The first minute of the oral reading for each student was electronically recorded.

Practicing reading specialists and teachers from Westside schools were trained to listen to electronic recordings of students' oral reading and assign a score for each of the prosodic dimensions listed in the Multi-Dimensional Fluency Scoring Guide (see Figure 1) (Zutell & Rasinski, 1991). Raters were trained to recognize the important features in the scoring guide by analyzing a set of anchor sample readings from each grade level and prosody trait (expression, smoothness, and pace). The anchor readings were selected by a group of 30 previously trained raters who participated in a protocol of listening to and rating a pool of 100 samples. Samples with the strongest level of agreements between raters were selected as anchor passages. Raters in the present study also practiced rating a number of samples in small groups, working until agreement was reached. The following elements of the scoring guide were emphasized in the training:

Phrasing and Expression

- Listen for a conversational tone in the reading.
- Listen for interpretation of words that communicate meaning.
- Pay close attention to phrasing.
- Keep the expression score separate from pace.

Smoothness and Accuracy

- Listen for correct pronunciation of words in combination with smooth delivery of phrases.
- Distinguish between difficulties with certain words and overall difficulties in smoothness.
- Determine where problems in smoothness and accuracy are resolved or not.

Pace

- Remember that pace is more than words per minute.
- Determine whether the pace helps to communicate meaning.
- Listen for the reader speeding up to convey excitement, or slowing down to communicate suspense or sadness.

After the training, each rater was given a set of headphones, a scoring guide, and copies of the standard texts for each grade level. Raters proceeded to independently score each sample on the three discrete fluency traits (expression, smoothness, and pace); the total test score for each rating could range from 3–12.

The Multi-Dimensional Fluency Scoring Guide (MFSG) (Rasinski, 2004; Zutell & Rasinski, 1991) (Figure 1) is a rubric intended for use by teachers to assess students' prosody or expression in oral reading. The MFSG is an elaboration of the fluency rubric used in the NAEP studies of oral reading (Pinell et al., 1995; Daane et al., 2005) that reported significant correlations (predictive validity) between oral reading prosody and fourth-grade students' silent reading comprehension. Face validity of the MFSG was determined by submitting the instrument to a panel of five reading experts for review. Reviewers were in unanimous agreement that the MFSG provides a valid guide for assessing the essential

elements of oral reading prosody. Miller and Schwanenflugel (2006) posit that rating scales or guides for assessing prosody are valid and useful tools for teacher and classroom use.

In a previous study employing an earlier version of the prosody rubric Rasinski (1985) reported a test-retest reliability of .90 and an interrater reliability of .96 and .98 for assessments of student readings in grades 3 and 5, respectively. Reliability of the fluency rubric in the Daane et al. study (2005) was determined by having 546 randomly selected oral recordings of student reading scored by a second coder. Exact matches or agreement between coders was achieved in 81% of the samples, and adjacent (one point difference) agreement was found in the remaining 19%. Reliability of the MFSG was also checked earlier by the second and third author by having over 6,000 oral reading samples of elementary students rated by two raters. An exact or adjacent match was achieved in 94% of the recording samples.

In the present study two raters independently scored each reading sample. Because the scores were recorded electronically, each rater was unaware of the scores given by the other rater. During the scoring process, the electronically programmed system compared the two ratings on each of the three dimensions. When the first and second raters disagreed by more than one point on the scoring rubric for any of the three dimensions, the system sent the sample to a third rater. In four previous years of using this protocol for over 12,000 reading samples from students' in local school districts, fewer than 10% of the students' oral readings required a third rating. In the present study, if the two raters differed by no more than one point on the scoring guide, the two scores are summed. The total score for all three traits is called the aggregate score and ranges from 6 to 24 (3 to 12 for each rater). The level of rater agreement, defined as plus or minus two on the 12 point aggregate scale, was .857 for this project.

Aggregate fluency scores were then correlated with the comprehension subtest scores from the district's administration of the SAT9. Normal curve equivalent (NCE) scores from the reading comprehension subtest of the Stanford Achievement Test (ninth edition) were used as the reading comprehension measure. Raw scores from the reading fluency assessment were used as the fluency measure.

Results

Means and standard deviations for the fluency and comprehension measures were determined for each grade level and are reported in Tables 1, 2, and 3.

The mean NCE scores of 56.7 for grade 3 converts to the 63rd percentile rank, 64.05 to the 76th percentile for grade 5, and 67.32 to the 79th percentile for grade 7.

A Pearson Product-Moment correlation coefficient was run to measure the relationship between the two interval-level data sources, oral reading fluency and silent reading comprehension. The results are displayed in Table 4.

Table 1
Means and standard deviations for grade three ($n = 391$)

| Variable | Mean | Range | SD |
|--|-------|-------|-------|
| Reading Comprehension (SAT9 NCE Scores) | 56.71 | 98.00 | 18.40 |
| Aggregate Fluency Score | 16.78 | 18.00 | 4.62 |

Table 2
Means and standard deviations for grade five ($n = 421$)

| Variable | Mean | Range | SD |
|--|-------|-------|-------|
| Reading Comprehension (SAT9 NCE Scores) | 64.05 | 99.00 | 20.15 |
| Aggregate Fluency Score | 18.40 | 18.00 | 4.22 |

Table 3
Means and standard deviations for grade seven ($n = 392$)

| Variable | Mean | Range | SD |
|--|-------|-------|-------|
| Reading Comprehension (SAT9 NCE Scores) | 67.32 | 88.60 | 19.60 |
| Aggregate Fluency Score | 17.79 | 18.00 | 4.32 |

Table 4
Correlations between measures of oral reading
fluency and silent reading comprehension

| Grade level | Correlation (r) fluency to comprehension |
|-------------|---|
| 3 | .634* |
| 5 | .657* |
| 7 | .571* |

Note. * $p \leq .0005$.

These results allow us to respond to the original questions that guided the study.

1. To what extent is prosodic reading and a measure of prosodic reading associated with overall reading proficiency as measured by a standardized test of reading comprehension?

At all three grade levels prosodic reading was significantly associated with silent reading comprehension. Students who read with greater prosody in oral reading tended to have higher levels of comprehension when reading silently.

2. What is the magnitude of the relationship between measures of reading fluency assessment and reading comprehension at grades 3, 5, and 7?

At all three grade levels a significant and substantial portion of the variance in silent reading comprehension is shared with or could be attributed to variance in reading fluency. The levels of shared variance were .402, .432, and .326 for grades 3, 5, and 7, respectively. This means that between 30–40% of the variance in comprehension is shared with the measure of reading fluency.

3. To what extent does the relationship between reading fluency and reading comprehension change as students progress through the grades.

The correlations between fluency and comprehension were significant at all three grade levels. A moderate drop in fluency was noted from grades 5 to 7. However, given the theoretical expectation (Chall, 1983) and empirical models (e.g., Schwanenflugel et al., 2006) that the development of fluency should be accomplished in the primary grades, the substantial correlation at grade 5, followed by a somewhat smaller, but still robust correlation at grade 7, was a bit of an unexpected finding. Moreover, the mean fluency score receded from grades 5 to 7 while the standard deviation increased, suggesting that overall prosody in reading regressed and that there is a wider spread in prosodic reading as students progress through the middle grades.

What Do These Findings Mean?

The results of the present study continue to validate the importance of reading fluency, regardless of how it may be measured (prosody or automaticity) in models of reading and especially in its relationship to reading comprehension. At all three grade levels that were assessed reading fluency was strongly and significantly associated with reading comprehension. Greater proficiency in expressive or prosodic oral reading was associated with higher levels of silent reading comprehension.

While correlations cannot imply causation, they do provide some suggestion that instruction aimed at increasing fluency may have a positive impact on reading comprehension. Recent studies have made a case for a causal relationship between prosody and reading comprehension among third- and fourth-grade readers (Miller & Schwanenflugel, 2006; Whalley & Hansen, 2006). Moreover, a growing body of studies suggest that instruction aimed at improving prosody and automatic reading fluency leads to improved comprehension (Griffith & Rasinski, 2004; Martinez, Roser, & Strecker, 1999; Biggs, Homan, Dedrick, & Rasinski, 2008). Instructional research needs to continue to verify the impact of fluency instruction on students' reading comprehension and overall reading proficiency, as well as issues not addressed in the present study such as attitude toward reading (Morrow & Asbury, 2003).

A somewhat surprising finding of this study was the importance of reading fluency on students beyond the primary grades. Chall's model of reading suggests that fluency is an issue largely for the primary grades. Yet, in the present study, fluency continued to be robustly correlated with silent reading comprehension at grades 5 and 7, thus suggesting that fluency continues to have importance beyond the primary grades. The amount of shared variance between fluency and reading comprehension ranged from approximately 40% at grade 5 to 33% at grade 7. These are substantial amounts and are suggestive of the potential for effective fluency instruction to have a powerful and positive impact on reading comprehension into the upper elementary and middle grades. Again, the research on instructional practices in reading fluency needs to continue well beyond the primary grades.

We also note that the students in the present study generally performed above national norms (i.e., mean comprehension performance was above the national norms on the SAT9), thus suggesting that the students in this study represented a restricted range of performance when compared with the general population. Given a similar study with a sample that more closely represented the range of performance in the general population, it is logical to assume that even more robust correlations between prosody and reading comprehension would result.

We note that the time limitations of the reading comprehension test (SAT9) may account for students' performance on the reading comprehension measure. However, the

validity of the SAT9 is well established and most students in the current study completed the test before the time period for administration had expired. In other words, students' comprehension performance was not significantly affected by their inability to complete the test within time limits.

Results from this study suggest that fluency development may stagnate in the middle grades. The mean fluency score for the seventh-grade cohort was below that of the fifth-grade cohort. Given normal developmental trends, unless fluency scores were approaching the ceiling in grade 5, the expectation should be that seventh-grade students' reading fluency scores should exceed the fifth-graders' scores in the same way that fifth-graders' fluency scores were better than the third-graders' scores. While the scores for grade 3 through 5 followed a predictable trend, the seventh-graders' scores were actually below those of the fifth graders (see Tables 1, 2, & 3), suggesting that seventh graders had not made much progress over the previous two years in their prosodic reading fluency. Indeed, our own classroom observations suggest that little reading fluency instruction is provided beyond the elementary grades in most schools.

Most operational conceptions of reading fluency manifest fluency as rate; similarly, most measurements of reading fluency in classroom practice and reading research employ reading rate. Although prosody is usually mentioned in the scholarship on fluency, it is rarely assessed in classrooms or research. In this study we used a teacher-oriented measure of prosody to operationalize reading fluency. Despite a much more restricted range (18 for the prosody measure) than one would find when using reading rate, the magnitude of the correlations between prosodic fluency and silent reading comprehension were substantial. Indeed, the correlation between fluency and comprehension for adolescent readers in grade 7 in the current study where fluency was measured using the restricted range scale, was actually higher than the .530 correlation between fluency and comprehension reported by Rasinski et al. (2005) for adolescent grade 9 students where fluency was measured using reading rate as the measure for reading fluency. In the 2005 study, the range of fluency scores was well over 100. A higher range of scores would suggest a stronger correlation; however, in the present study fluency as measured with an instrument with a considerably smaller range of possible scores had the more robust correlation.

This finding of the robustness of the prosodic measurement of reading fluency suggests a significant link or association between the prosodic component of fluency and reading comprehension. Instruction aimed at improving expressive oral reading may have an even greater impact on comprehension than instruction that is aimed at improving reading rate and automatic word decoding. Instruction focused on oral interpretation of texts such as poetry, scripts, dialogues, monologues, oratory, and the like may hold considerable weight in developing students' expressive and meaning-filled interpretations of texts.

The present study, then, confirms and extends some already existing notions about reading fluency and its place in models of reading and reading instruction. In this study, we confirm previous work that reading fluency, even when using a measure of prosody rather than automaticity (reading rate) to assess fluency, continues to have a substantial association with silent reading comprehension. Moreover, this study points out that reading fluency is a salient instructional variable well into the middle grades.

If the ultimate goal of reading instruction is proficient reading comprehension, then reading fluency, both automatic word decoding and prosodic reading, need to be part of the instructional repertoire offered to teachers and students, especially struggling readers (Allington, 2000). Allington (1983) claimed that reading fluency is the neglected goal of the elementary reading program. Over ten years later Rasinski and Zutell (1996) confirmed that reading fluency continued to be ignored in instructional practice and materials

in the elementary grades. If reading fluency is not taught in the elementary grades is there any reason to expect adolescent readers to achieve fluency? Is there any reason not to expect that many students who struggle in reading through the middle and secondary grades manifest difficulties in reading fluency that need to be addressed? Clearly, the need exists for more research into the impact of all aspects of reading fluency and the role of reading fluency instruction in its full manifestation, automaticity and prosody, in the middle and secondary grades. The potential for such work to improve reading instruction for all students is enormous.

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